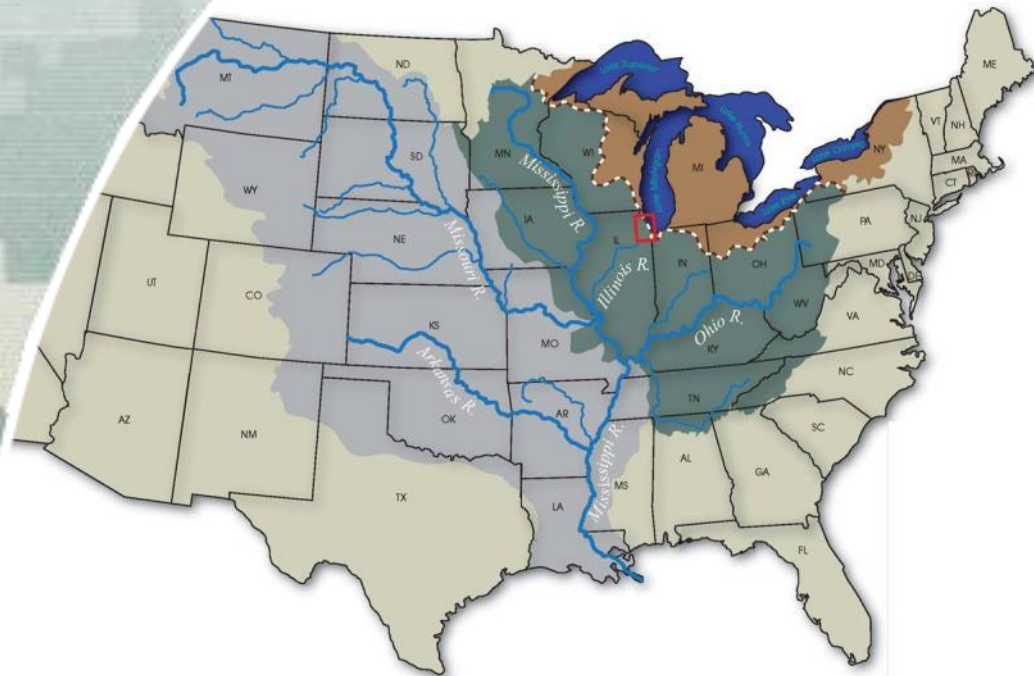


# Great Lakes & Mississippi River Interbasin Study

## GLMRIS

Gary O'Keefe, P.E.  
GLMRIS Program Manager  
September 27, 2011



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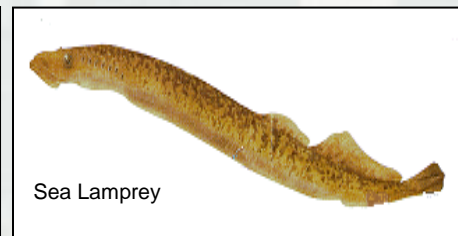
# GLMRIS – Study Summary

## ■ Authority

*(d) FEASIBILITY STUDY.-The Secretary, in consultation with appropriate Federal, State, local, and nongovernmental entities, shall conduct, at Federal expense, a feasibility study of the range of **options and technologies available to prevent the spread of aquatic nuisance species** between the Great Lakes and Mississippi River Basins **through the Chicago Sanitary and Ship Canal and other aquatic pathways.***

## ■ Purpose

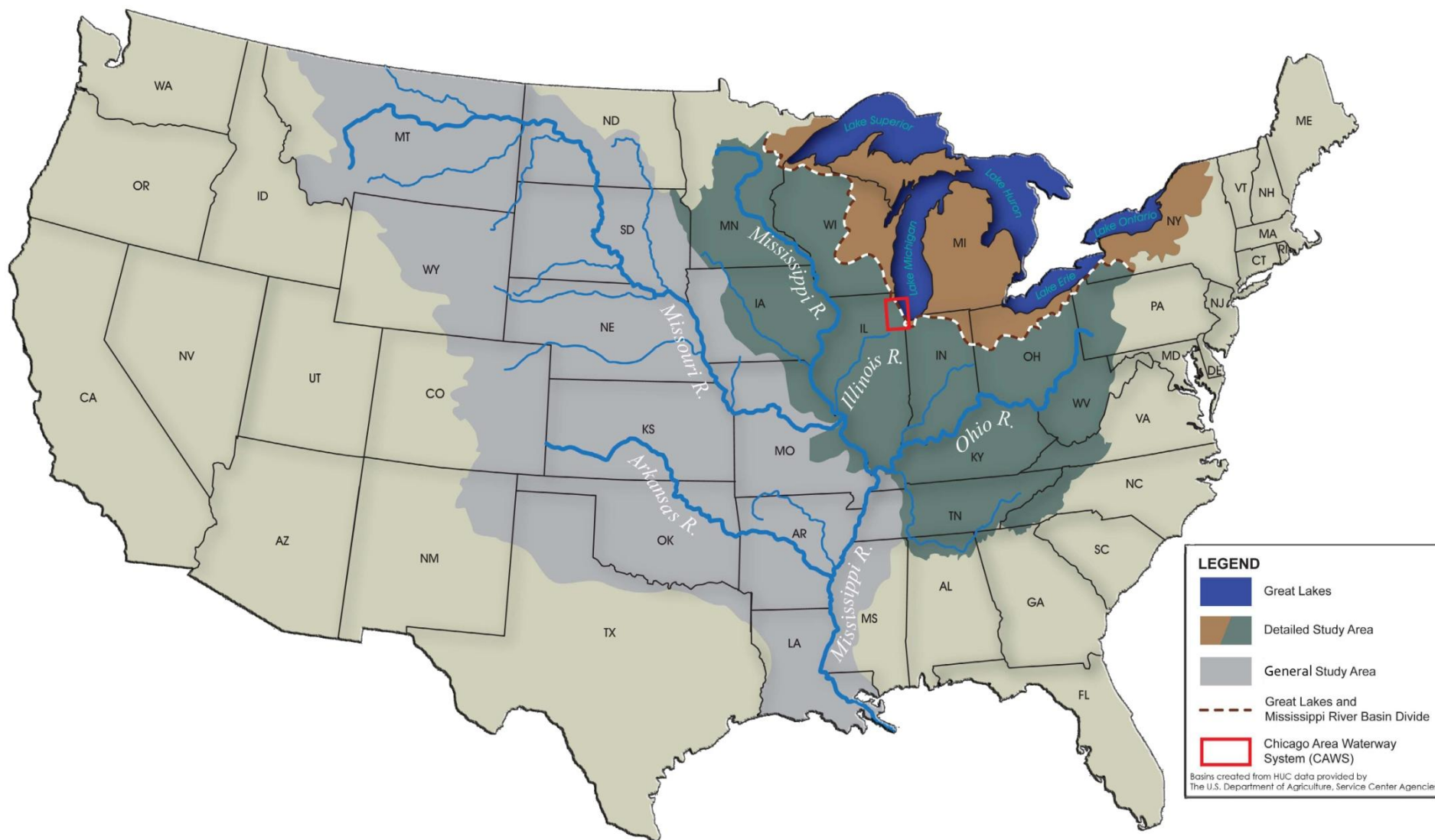
- ▶ Identify aquatic pathways that may exist between the Great Lakes and Mississippi River basins
  - Focus Area I – Chicago Area Waterways
  - Focus Area II – Other Pathways
- ▶ Inventory current and future potential aquatic nuisance species (ANS)



- ▶ Analyze possible ANS controls available to prevent ANS transfer between basins, via aquatic pathways



# GLMRIS STUDY AREA MAP





# GLMRIS - Feasibility Study Scope

	Includes	Does not Include
Pathways	Aquatic Connections	Terrestrial Airborne
	Swimmers ( <i>fish</i> ) Floaters ( <i>algae, plants, etc</i> ) Hitchhikers ( <i>parasites</i> )	Human Release
Locations	Interface between Great Lakes Basin and Mississippi River Basin	Atlantic slope; St. Lawrence Seaway
	Portions of 31 U.S. states	Canada
Elements	Analysis of options/technologies to prevent interbasin transfer of all ANS	Detailed biological research on aquatic nuisance species of concern
	Evaluation of hydrologic separation	Airborne or terrestrial separation elements
	Regional economic modeling	Location-specific economics
	Risk-based ecological decision-making	Quantitative environmental models
	Environmental Impact Statement	

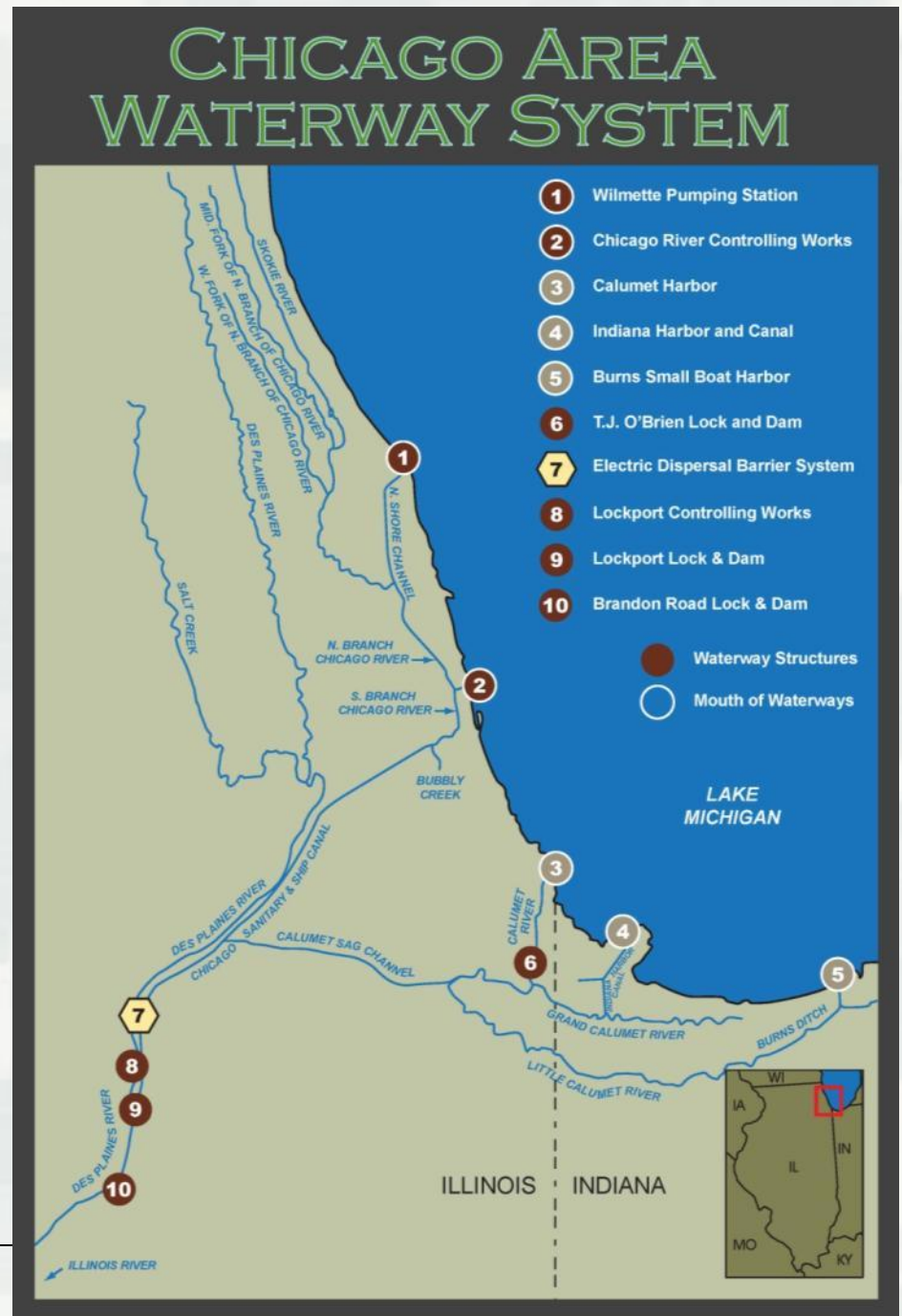


# Focus Area I

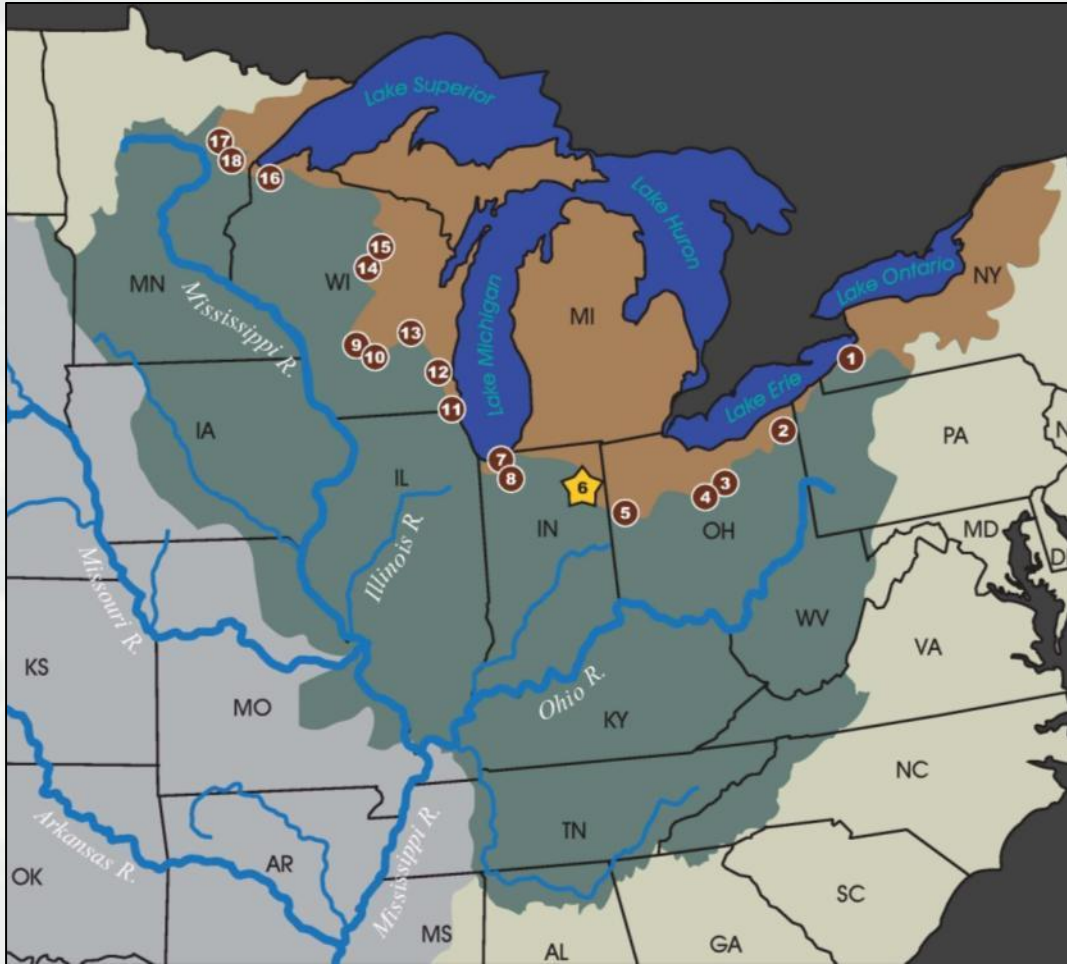
- Specify Problems & Opportunities
- Inventory & Forecast Conditions
  - ▶ Baseline data; surveys
  - ▶ Reports
- Formulate Alternative Plans
- Evaluate Effects of Plans
- Compare Alternatives
- Select Recommended Plan
  - ▶ Feasibility Report
  - ▶ Environmental Impact Statement
  - ▶ Record of Decision

## Collaboration

- Federal, State, Regional Agencies
- Native American Tribes
- Non-governmental organizations



## Focus Area II



## Preliminary Risk Characterization

- Objectives

- ▶ Inventory of potential aquatic pathways
- ▶ Assess risk of ANS transfer

- Results

- ▶ 18 locations w/ significant risk for potential ANS transfer

► Highest Risk:

## Eagle Marsh, Ft Wayne, IN

- Intermittent aquatic pathway; Asian carp reported w/in 25 mi
- Interim measure implemented by InDNR
- USACE developing long-term risk mitigation alternatives



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## Recent Study Activities

- Implement and complete NEPA Scoping activities
  - ▶ Post searchable comment database to GLMRIS website
  - ▶ NEPA Scoping Summary Report – August 2011
- Ongoing data collection to describe baseline conditions
  - ▶ ANS White Paper – July 2011
  - ▶ Commercial Passenger Baseline – September 2011
- Establish larger, more focused Other Pathways Team
  - ▶ Final risk characterization report
  - ▶ Detailed study efforts at Eagle Marsh
- Ongoing communication efforts
  - ▶ Quarterly ESC meetings
  - ▶ Website, social media

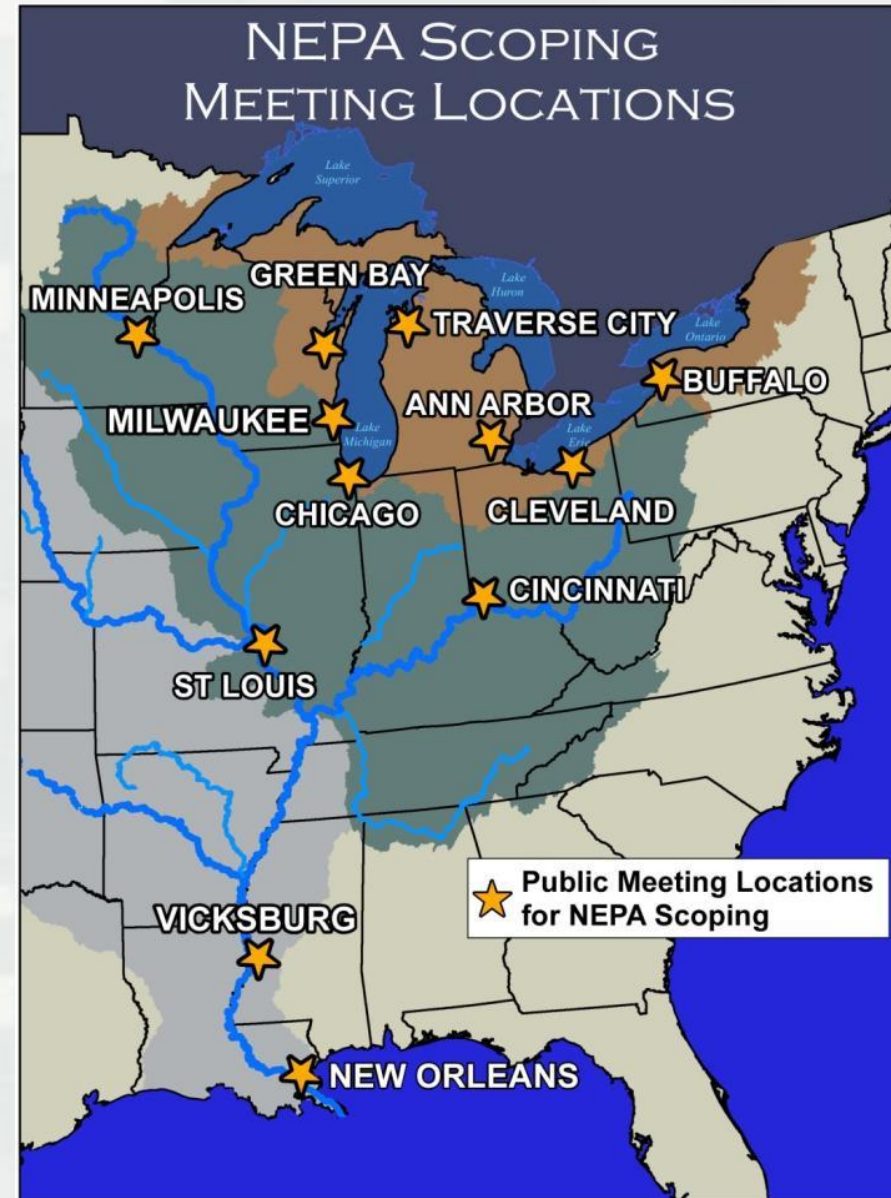




# NEPA Scoping

## Public Input to Study Process

- Jan-Mar 2011
- Regional locations
  - ▶ Great Lakes Basin
  - ▶ Mississippi River
- View & search comments on GLMRIS website  
<http://glmris.anl.gov>
- Summary report August 2011





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## Common Themes - Public Scoping Meeting Comments

- Completion of study in 2015 is too late
  - ▶ Aggressive timeline; collection of baseline data; assumes commensurate funding
- Hydrologic separation is the only viable alternative
  - ▶ Authority directs USACE to examine range of options and technologies
- Other studies (i.e., GLC) need to be utilized to speed up process
  - ▶ May utilize information from contributors, provided within scope and QA/QC req's
- Need to follow Congressional authority and “prevent” instead of merely “reducing the risk”
  - ▶ Will evaluate various options and technologies with a goal of prevention
- Asian carp issues need to be addressed immediately
  - ▶ Barrier construction/operations; Efficacy Study results; ACRCC coordinated actions



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## Interim Products

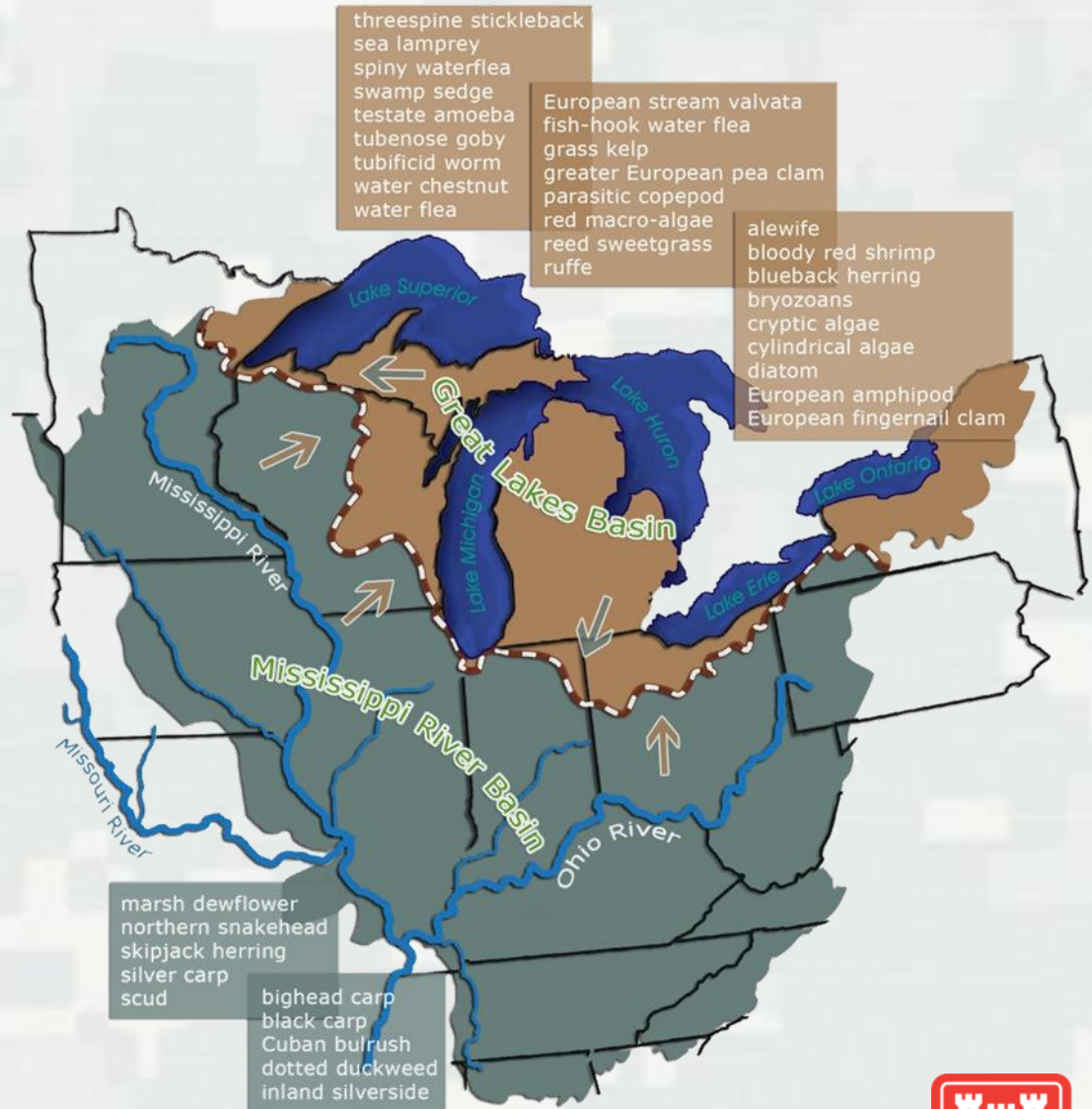
- Provide information to stakeholders in advance of final study document or recommendation(s)
  - ▶ Chicago Area Waterway System
    - ANS White Paper
    - NEPA Scoping Report
    - ANS Control Technology Report
    - Commercial Cargo Navigation Data
    - Commercial Non-Cargo Navigation Data
    - Recreation/Boating Data
    - GL/MR Fisheries Data
  - ▶ Other Pathways
    - Preliminary Risk Characterization Report
    - Final Risk Characterization Report
    - Eagle Marsh ANS Controls Report



ANS established in the Great Lakes Basin  
with potential to transfer into the Mississippi River Basin

# ANS White Paper

- Extensive literature review of potential ANS
  - ▶ Over 625 pieces of lit; 254 “alien” species ID’d
  - ▶ 119 potential ANS in both basins
  - ▶ **39 “high-risk” species for transfer via CAWS**
- Rigorous Review
  - ▶ USACE Technical Review
  - ▶ Agency review by NOAA, USFWS, and USGS
  - ▶ Public/Stakeholder Review
- Next Steps:
  - ▶ Detailed lit review on “high-risk” ANS
  - ▶ Eco-risk assessment



ANS established in the Mississippi River Basin  
with potential to transfer into the Great Lakes Basin





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## Focus Area 2 Update

### ■ Eagle Marsh

#### ▶ Short-term adult Asian carp barrier

- Constructed in Sep 2010 – IDNR, GLRI funds
- 1,177 feet long, 8 feet high

#### ▶ Winter '11/'12 – ANS Controls Report for Eagle Marsh

### ■ Final Risk Characterization Report

- ▶ Review inventory of potential connections; assign hydrologic risk
- ▶ Interagency Team: USGS; USFWS; NOAA; GLFC; State DNR's
- ▶ Draft anticipated Dec 2011





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## Stay Involved

This Web site is the online center for public information and involvement in the Great Lakes and Mississippi River Interbasin Study (GLMRIS). Browse this Web site, and subscribe to receive e-mail alerts and GLMRIS newsletters. You can also attend public forums to be hosted by USACE. Forum details such as date, time, and location will be announced on this Web site, to GLMRIS email subscribers, and through social media outlets.

The GLMRIS Team is utilizing Facebook and Twitter as a means of broadcasting ways to stay involved with GLMRIS and with issues associated with aquatic nuisance species. Join the GLMRIS conversation on [Facebook](#) and [Twitter](#).

Just rolled out the "common-name" directory of potentially invasive aquatic species for GLMRIS. You can find them here: <http://bit.ly/rjFdr>  
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#### Great Lakes & Mississippi River Interbasin Study (GLMRIS)

Are you interested in potentially invasive aquatic species in the Great Lakes or Mississippi River basins, but not quite sure how to pronounce "Gymnocephalus cernuus"? Just tell your friends you're interested in the "ruffe" – it's a lot easier to say! Check out the common-name directory of high-risk aquatic nuisance species on the GLMRIS website: <http://glmrис.anl.gov/documents/ans/index.cfm>

#### Aquatic Nuisance Species (ANS)

[glmrис.anl.gov](http://glmrис.anl.gov)

Aquatic Nuisance Species (ANS) White Paper and fact sheets about high-risk species that are most likely to transfer between